# RIVER MURRAY FLOW ADVICEUPDATE

## **Increased Flows to South Australia**

Issued 17:00 17 December 2010

This supersedes the previous flow advice issued by the Department for Water (DFW) at 17:00, 10 December 2010. **This is NOT a Flood Warning.** A further update will be provided on Friday 24 December 2010.

#### **DECEMBER 2010 to JANUARY 2011 FLOW OUTLOOK**

Flow to South Australia has increased over the last week to 65,000 ML/day in response to heavy rainfall upstream of the South Australian border, high River Murray flow and inflows from the Darling and Murrumbidgee Rivers. Flows over the next week are expected to be in the range of 65,000 ML/day to 75,000 ML/day, depending on operations and flow conditions upstream.

This flow is due to a number of factors, including operations of structures upstream of South Australia limiting the ability to control river flow upstream of Lock 6 to Lock 11.

The increased flow to South Australia is also partially due to implementing the Lake Victoria Operations Strategy. This strategy aims to minimise the amount of time water in the lake is held at high levels to protect native vegetation and the cultural heritage around the lake. The water level in Lake Victoria remains partially drawn down (currently 513 GL or 75% capacity and this level will reduce further) and will be refilled at a later stage given that high flow conditions are expected to remain for at least the next two months.

Currently no water is flowing into Lake Victoria through Frenchman's Creek and, as a result, more water will flow down the main channel. There will also be increased flow down the Rufus River due to higher releases from the lake (currently 7,000, ML/day). The current flows will not result in overbank flows of the main channel of the River Murray and will result in low-lying areas of the Chowilla floodplain receiving water from creeks and flood runners.

Locks 5, 6, 7, 8, 9, 10 and 11 navigable passes have been removed due to the high flow upstream. Locks 7 and 8 are currently under water and Locks 1 and 3 navigable passes should be removed in the next week.

Flow conditions to South Australia will increase over the coming weeks. While the flow range in mid January 2011 is still unclear, due to the uncertainty about flows from the Murrumbidgee River and releases from Menindee Lakes, there is a possibility flow could reach 90,000 ML/day.





A flow of 90,000 ML/day is not a threat to towns and levee banks; however, some roads campsites and causeways located on floodplains are likely to be inundated. This peak flow rate is within the normal historical flow range for the River Murray in South Australia. No populated areas will be at risk of flooding from this flow, but some lowlying areas of the floodplain, creeks and flood runners are receiving additional water.

People below Lock 1, particularly between Blanchetown and Mannum, should take any necessary actions to modify irrigation infrastructure, pontoons and moorings to allow for temporary river level rises due to increased flows over Lock 1 and from wind.

SA Water and the Department for Water have developed a River Murray Level Water Level chart to provide projected water level heights at a number of locations from Lock 9 to Murray Bridge. The table below outlines the projected water levels, which are based on previous events, but these levels may change as river conditions and operations upstream of the South Australian border change.

Location	River Km	Current Level (m AHD)	Predicted Peak level (m AHD)	Approx. Date of Peak	Further Rise (m)
Lock 9 Kulnine	764.8	27.88	28.95	13 Jan	1.15
Lock 8 Wangumma	725.7	26.09	26.85	14 Jan	0.76
Lock 7 Rufus River	696.6	24.34	25.05	15 Jan	0.71
Lock 6 Murtho	619.8	19.58	19.94	16 Jan	0.36
Renmark	567.4	16.59	17.41	17 Jan	0.55
Lyrup	537.8	14.75	15.60	17 Jan	0.85
Berri	525.9	14.42	15.20	18 Jan	0.78
Loxton	489.9	12.54	13.50	19 Jan	0.96
Cobdogla	446.9		11.50	19 Jan	
O/L Corner	425.9	9.02	10.70	20 Jan	1.68
Waikerie	383.6	7.80	9.30	20 Jan	1.5
Cadell	332.6		7.15	21 Jan	
Morgan	321.7	4.91	6.50	21 Jan	1.59
Blanchetown	274.2	3.31	4.50	22 Jan	1.19
Swan reach	245.0	2.0	3.60	23 Jan	1.6
Mannum PS	149.8	1.05	1.60	24 Jan	0.55
Murray Bridge	115.3	1.00	1.30	26 Jan	0.30



People interested in actual levels should check the following websites for regularly updated daily levels, as the projections do not take into account wind.

#### **SA Water**

www.sawater.com.au/SAWater/Environment/TheRiverMurray/River+Murray+Levels.htm

#### **Department for Water**

http://www.waterconnect.sa.gov.au/RMWD/Pages/default.aspx

Information is also available from SA Water on 08 8595 2299

### **COMPARISON WITH PREVIOUS FLOW EVENTS**

For comparison, the 1974 flood peak was 180,000 ML/day, well above current and projected levels.

In 2000-01, flow peaked in mid-December 2000 at 64,000 ML/day and in mid-December 1992 flows peaked at 93,000 ML/day.

#### **HIGH FLOWS AND RECREATION**

All river users are reminded to exercise caution when entering fast-flowing rivers and are reminded to enjoy the river, but to take care for yourself and others.

- Do not drive, ride or walk through floodwater, flood-affected causeways or roads.
- Be aware that branches and other hazardous debris may be hidden below the surface of the river.
- Be aware of the risks of faster flowing water when travelling on or swimming in the river.
- Do not allow children to play in or near floodwater or fast-flowing river water.
- Regularly monitor river levels in your local area, and take care not to become isolated by rising water.
- Obey any instructions from the emergency services (SES, SA Police and CFS).
- For flood-related assistance, contact the SES on 132 500
- To report a riverbank collapse, contact the Department for Water on 1800 751 970
- For life-threatening emergencies, call 000

#### **FLOOD RISK ABOVE LOCK 1**

Pool levels between the border and Lock 1 will change in response to the higher flow conditions. Options for managing weir pools for improved environmental outcomes are currently being considered and any actions to water greater areas of the floodplain will require further manipulation of weir pool levels. The projected risk of harmful inundation under current flow projections is very low, but water levels immediately downstream of all locks will increase to levels observed above normal regulated flow conditions. In some situations there will be very little difference between the upstream and downstream water levels.

Immediately downstream of some locks the water levels are currently 2m to 2.5m above the normal regulated level. This is expected as part of normal flow management operations, and is not expected to pose a risk to people or property.





People planning to visit low-lying floodplain areas above Lock 1 in the near future are advised to monitor water levels and road access conditions, and take reasonable precautions.

#### FLOOD RISK DOWNSTREAM OF LOCK 1

Flow over Lock 1 is currently 50,000 ML/day and further rises will occur - potentially to around 55-65,000 ML/day.

Water levels immediately downstream of Lock 1 remain high at 3.2 AHD. This compares to minus 0.51m AHD at the same time last year. Further rises are expected to occur from immediately downstream of Lock 1 to Mannum. The range currently expected is up to 3.7m AHD at Lock 1 to 1.05m AHD at Murray Bridge.

Below Lock 1, the Lower Lakes are currently higher than their normal full supply level of 0.75m AHD and water is being released from the barrages to manage the higher flows and to drawdown the water level in the Lower Lakes for improved salinity outcomes, particularly in Lake Albert. Some minor changes may occur to these operations to achieve specific environmental outcomes.

River Murray levels between Lock 1 and the Lower Lakes continue to rise in response to recent flow increases and may rise further if flow increases during the next week. Localised increases in water level may also occur as a result of wind effects.

In response to the projected December 2010 flow increase, localised water level increases are expected to occur and indicative levels are shown in the table below. Note that these are indicative and may be affected by localised wind conditions.

Reach	Projected level	Projected level AHD	
	above normal pool (0.75m AHD)		
Wellington to Murray Bridge	0.2 -0.3m above pool	0.95 – 1.05m AHD	
Murray Bridge to Mannum	0.3 – 0.45m above pool	1.05 – 1.2m AHD	
Mannum to Purnong	0.45 -0.85m above pool	1.2 – 1.6m AHD	
Purnong to Swan Reach	0.85 – 2.05m above pool	1.4 6 – 2.8m AHD	
Swan Reach to Lock 1	2.05 – 2.95m above pool	2.8 – 3.7m AHD	

There may be water over low-lying access roads.

People planning to visit low-lying floodplain areas below Lock 1 in the near future are advised to monitor water levels and road access conditions, and take reasonable precautions.

People are advised to monitor the latest weather and flow forecasts and obey any signage along the River Murray or instructions from the emergency services.

For flood-related assistance, call the State Emergency Service on 132 500.

For life-threatening emergencies, call 000.

## **LEVEE BANKS**





Areas along the River Murray between Lock 1 and Lower Lakes that are protected by levee banks are advised that due to prolonged drought conditions and low river levels:

- levee banks may have deteriorated and could be at risk of failure; and
- floodplain areas including levee banks may have subsided due to soil drying and consolidation.

There have been isolated cases of levee bank leakage due to rising River Murray levels. This Department is closely monitoring the situation and working closely with the SES to ensure public safety.

Projected increased flow in December 2010 and January 2011 may continue to impact levee banks downstream of Lock 1. People in the vicinity of levee banks are advised to regularly monitor levee bank condition.

If significant structural cracking or leakage of levee banks is evident, people are advised to avoid the area, relocate to higher ground and call the Riverbank Collapse Hotline (1800 751 970) to report any observations.

#### RIVERBANK COLLAPSE

The predicted additional flows will raise water levels downstream of Lock 1, including areas known to be at risk of riverbank collapse. There is an increased risk of riverbank collapse occurring at some locations where soils show signs of cracking.

People living, working or playing along the River Murray below Lock 1 are advised to continue to look out for the signs of potential riverbank collapse. These include cracking in the river bank, leaning trees or bubbles in the river.

Further information is available at the Riverbank Collapse section of <a href="http://www.sa.gov.au">http://www.sa.gov.au</a>.

To report the signs of Riverbank Collapse or to obtain further information call the free 24 hour Riverbank Collapse Hotline (1800 751 970). For life-threatening emergencies, call 000.

#### **FURTHER INFORMATION**

Up to date River Murray flow information can be accessed at the DFW, SA Water and Murray-Darling Basin Authority websites:

http://data.rivermurray.sa.gov.au

www.sawater.com.au/SAWater/Environment/TheRiverMurray/River+Murray+Levels.htm http://www.mdba.gov.au/water/live-river-data

Details of river height and rainfall information in the River Murray within Victoria and New South Wales are available at the Bureau of Meteorology website:

http://www.bom.gov.au/vic/flood

## **UPDATES**

This Advice remains current until the Department for Water notifies otherwise.



